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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/741,780	12/19/2000	Duane L. Wires		4970

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EXAMINER

BERMAN, SUSAN W

ART UNIT PAPER NUMBER

1711

DATE MAILED: 08/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/741,780

Applicant(s)

WIRES, DUANE L.

Examiner

Susan W. Berman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 June 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 is/are pending in the application.  
4a) Of the above claim(s) 15-34 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-14 is/are rejected.  
7) ☒ Claim(s) 2 is/are objected to.  
8) ☒ Claim(s) 1-34 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 19 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after non-final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, applicant's submission filed on 06/15/2006 has been entered.

***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-14, drawn to a polymerizable resin material comprising a photoinitiator, classified in class 522, subclass 182.
- II. Claims 15-34, drawn to a method for making a plastic lens comprising curing a lens composition in a mold, classified in class 264, subclass 496. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case the composition can be used in a materially different process, such as forming a film, a sheet or a coating on a substrate.

Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper. Because these inventions are independent or distinct for the reasons given above and the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

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During a telephone conversation with Steven Courtright on August 24, 2006 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-14. Affirmation of this election must be made by applicant in replying to this Office action. Claims 15-34 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### ***Claim Objections***

Claim 2 is objected to because of the following informalities: Claim 2, line 5, the compound "ethoxylate monyl phenol" should be "ethoxylate nonylphenol" or "ethoxylated nonyl phenol". It is not known what "monyl" represents. See page 11, line 5, page 14, lines 25-26, and Examples 4 and 5. There is also a disclosure of "ethoxylated monyl phenol acrylate" on page 7, line 20. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 2 and 9-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 2 and 9-14 set forth weight percents but do not set forth what total weight the recited weight percents are based upon. Therefore, the weight percents required are not clearly set forth.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill

in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukushima et al (5,969,867). Fukushima et al disclose radiation curable compositions comprising 20 to 80 parts by weight of a thio dimethacrylate compound I, 20 to 80 parts by weight of a second methacrylate "B" and a photoinitiator. Component B can be 10-90 parts by weight "B-1", such as 2,2-bis(meth)acryloxyethoxyphenyl) propane and 1 to 50 parts by weight "B-2", such as benzyl methacrylate (column 4, lines 16-51, column 5, line 42, to column 6, line 19, and column 6, line 59, to column 7, line 13, column 7, line 53, to column 8, line 27). UV absorbers are taught in column 8, line 46. Photoinitiators are used in the Examples. Fukushima et al teach curing at wavelengths from 200-600 nm (column 9, lines 20-22). See Example 8. Fukushima et al do not teach adding a "stabilizing monomer", an optional component set forth in the instant claims.

It would have been obvious to one skilled in the art at the time of the invention to provide compositions comprising BPA-2 and BZM in combination because Fukushima et al teach that these monomers are preferred components of the disclosed compositions. Fukushima et al teach that the disclosed compositions can contain as little as 20-30 parts by weight compound of formula I and correspondingly 70-80 parts by weight of a mixture of 10-90 pbw B-1 and 1-50 pbw B-2 monomers. as taught in Example 8, thus suggesting the instantly claimed wt percents. Further motivation is provided by the disclosure of such a monomer mixture in Example 8. With respect to claim 2, the claim, as written, sets forth species of stabilizing monomers but does not require that the **optional** stabilizing monomer is present in the composition.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being obvious over Coleman et al (5,708,064) in view of Garrity (6,174,464, having an effective filing date of 4/30/1996). Coleman et al discloses a high refractive index photochromic ophthalmic article. The preferred high refractive index monomers

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include ethoxylated bisphenol A bis(meth)acrylate, styrene, divinylbenzene and diallylphthalate (column 3, lines 16-25). Monomers such as trimethylolpropane triacrylate can be added (column 3, lines 38-40, 48-49). Photochromic compounds are taught in column 6, line 61, to column 7, line 64. Benzyl methacrylate is not mentioned.

Garrity discloses polymerizable lens compositions for photochromic contact lenses. Compositions comprising 80-95 wt % bisphenol A ethoxylated dimethacrylate monomer (formula (I)), 5-20 wt % of an aromatic monovinyl monomer, a photochromic dye and a diazo radical polymerization initiator are taught. Garrity teaches that the lens is obtained from a composition comprising at least two monomers selected from those in column 2; for example, bisphenol A ethoxylated dimethacrylate monomer (formula (I)), an aromatic monovinyl monomer and a (meth)acrylic monomer (vi), such as styrene, divinylbenzene and diallylphthalate or benzyl methacrylate (column 2, lines 1-60). The wt % of monomer (vi) is not mentioned. A composition comprising bisphenol A ethoxylated dimethacrylate monomer (formula (I)) and 5-15 wt% benzyl methacrylate is taught in column 6, line 15, to column 8, line 28. Garrity teaches that the refractive index of the photochromic material can be adjusted by a modifying monomer (d), such as divinylbenzene and diallylphthalate or benzyl methacrylate (column 8, lines 20-28). Garrity does not teach a "stabilizing monomer", as set forth in the instant claims.

It would have been obvious to one skilled in the art at the time of the invention to employ or substitute benzyl (meth)acrylate for any of the high refractive index monomers, such as styrene, divinylbenzene and diallylphthalate, taught by Coleman et al in the compositions disclosed by Coleman et al. Garrity provides motivation by teaching that a (meth)acrylic monomer (vi), such as styrene, divinylbenzene and diallylphthalate or benzyl (meth)acrylate, allows for adjustment of the refractive index of a photochromic material in analogous compositions. One of ordinary skill in the art at the time of the invention would have been motivated by a reasonable expectation of obtaining a useful high refractive index photochromic article, as taught by Coleman et al. It would have been obvious to one skilled in the

art at the time of the invention to determine the optimum wt. percents of the different monomers, photochromic dyes and other additives to employ in compositions obtained by combination of the teachings of Coleman et al and Garrity. The reason is that the wt. percents set forth in the instant claims are within the teachings of the references and would be expected to provide useful compositions for obtaining photochromic lenses.

***Allowable Subject Matter***

Claims 10-14 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The cited prior art cited herein and otherwise known to the examiner does not teach composition comprising the specified components in the specified weight % set forth in claims 10-14.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Widawski et al [US 2002/017350, having an effective filing date of 7/03/1998] . Widawski et al disclose compositions comprising 30 to 100% monomer of formula (I) in the Abstract, and 0 to 70 % of an other polymerizable monomer (II) and a polymerization initiator. Monomer (II) can be a bisphenol A ethoxylated dimethacrylate monomer (IIc) in [0040-0042] and [00047]. Photoinitiators are taught in [0062]. See Examples 2-5. Widawski et al do not mention benzyl methacrylate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan W. Berman whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SB  
8/24/06



Susan W Berman  
Primary Examiner  
Art Unit 1711